

Amendments to the Claims:

Please cancel claims 1-14 as presented in the underlying International Application No. PCT/DE2003/002218.

Please add new claims 15-31 as indicated in the listing of claims below.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-14 (cancelled)

Claim 15 (new): A reciprocating piston-type machine, comprising:

a housing;

a housing cover;

a power unit disposed in the housing and including a plurality of pistons;

one of a suction and discharge area and a forward shaft bearing disposed in the housing cover; and

a screw connection configured to screw-couple the housing cover to the housing, the screw connection including sawtooth thread between the housing and the housing cover.

Claim 16 (new): The reciprocating piston-type machine as recited in claim 15, wherein the machine includes a compressor.

Claim 17 (new): The reciprocating piston-type machine as recited in claim 16, wherein the compressor is part of an air conditioning system of a motor vehicle.

Claim 18 (new): The reciprocating piston-type machine as recited in claim 15, wherein the screw connection includes a first thread side disposed on the housing and a second thread side disposed on the housing cover.

Claim 19 (new): The reciprocating piston-type machine as recited in claim 15, wherein, in response to an axial compressive load on the cover, the sawtooth thread creates a stress in a radial direction substantially less than a hypothetical stress in the radial direction created by a triangular thread.

Claim 20 (new): The reciprocating piston-type machine as recited in claim 15, wherein a tightening torque required to screw-couple the housing cover to the housing is less than a tightening torque for a triangular thread.

Claim 21 (new): The reciprocating piston-type machine as recited in claim 15, wherein, as compared to a triangular thread, a thermal stress in the screw connection is less.

Claim 22 (new): The reciprocating piston-type machine as recited in claim 15, wherein, in comparison to a triangular thread, a loading on the housing is less.

Claim 23 (new): The reciprocating piston-type machine as recited in claim 15, wherein a wall thickness of the housing is smaller and a thread length is shorter as compared to a triangular thread.

Claim 24 (new): The reciprocating piston-type machine as recited in claim 15, wherein a weight of at least one of the housing and the housing cover is less than a minimum weight of a housing and housing cover coupled using a triangular thread.

Claim 25 (new): The reciprocating piston-type machine as recited in claim 15, wherein the screw connection includes first thread side including a first material having a first material strength and a second thread side including a second material having a second material strength higher than the first material strength, wherein each tooth of the first thread side is larger than a corresponding tooth of the second thread side.

Claim 26 (new): The reciprocating piston-type machine as recited in claim 25, wherein a length of the sawtooth thread in an axial direction is less than a standard sawtooth thread.

Claim 27 (new): The reciprocating piston-type machine as recited in claim 25, wherein a pitch of the saw tooth thread is steeper pitch than a standard sawtooth thread.

Claim 28 (new): The reciprocating piston-type machine as recited in claim 25, wherein a manufacturing tolerance of the saw tooth thread is larger than a standard manufacturing tolerance of a standard sawtooth thread.

Claim 29 (new): The reciprocating piston-type machine as recited in claim 25, wherein the first thread side is disposed on one of the housing and the housing cover, and wherein each tooth of the first thread side includes an upper surface that is sufficiently wide for clamping during further machining of the housing or housing cover.

Claim 30 (new): The reciprocating piston-type machine as recited in claim 15, wherein the screw connection includes an external thread side including a material having a first thermal expansion coefficient and an internal thread side including a material having a second thermal expansion coefficient less than the first thermal expansion coefficient, and wherein a flank angle of the sawtooth thread is $< 0^\circ$.

Claim 31 (new): The reciprocating piston-type machine as recited in claim 15, wherein the screw connection includes an external thread side including a material having a first thermal expansion coefficient and an internal thread side including a material having a second thermal expansion coefficient greater than the first thermal expansion coefficient, and wherein a flank angle of the sawtooth thread is $> 3^\circ$.